

**ABSTRACT**

A method for fabricating multi layer devices on a substrate with a buried oxide layer is disclosed. Multi layer microelectromechanical, microfluidic, and integrated circuit devices are fabricated on a substrate with layers of predetermined weak and strong bond regions with  
5 deconstructed layers of devices at or on the weak bond regions. The layers are then peeled and subsequently bonded to produce a multi layer microelectromechanical and microfluidic devices. An arbitrary number of layers can be bonded and stacked to create either microelectromechanical or microfluidic device or a hybrid type of device..